



## Do Sweat It: Student Reactions to Research on the Relationship Between Physical and Mental States

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# DO SWEAT IT: STUDENT REACTIONS TO RESEARCH ON THE RELATIONSHIP BETWEEN PHYSICAL AND MENTAL STATES

## RESEARCH PROJECT OVERVIEW

The research presented here examines the efficacy of an andragogical yet non-traditional teaching tool for business students – the incorporation of a fitness session at a university gymnasium as part of their negotiation curriculum. The teaching exercise under examination here incorporates an integrative instructional approach, using an experience-based, active platform for learning (Campbell, et al., 2006) to extend students' understanding of both the importance of physical activity as well as cross-disciplinary connectivity utilizing literature drawn from the management sciences as well as the neurocognition and health sciences domains.

## BACKGROUND

Physical activity is critical to the health of the human brain (Nussbaum, 2003). Research indicates that people who are engaged in physical exercise outperform those who are sedentary in tests of long-term memory, reasoning, attention, problem-solving, and fluid-intelligence tasks. In other words, those individuals that are more physically active are able to reason more quickly, think abstractly, and improvise more effectively to solve a new problem (Medina, 2008).



## RESULTS

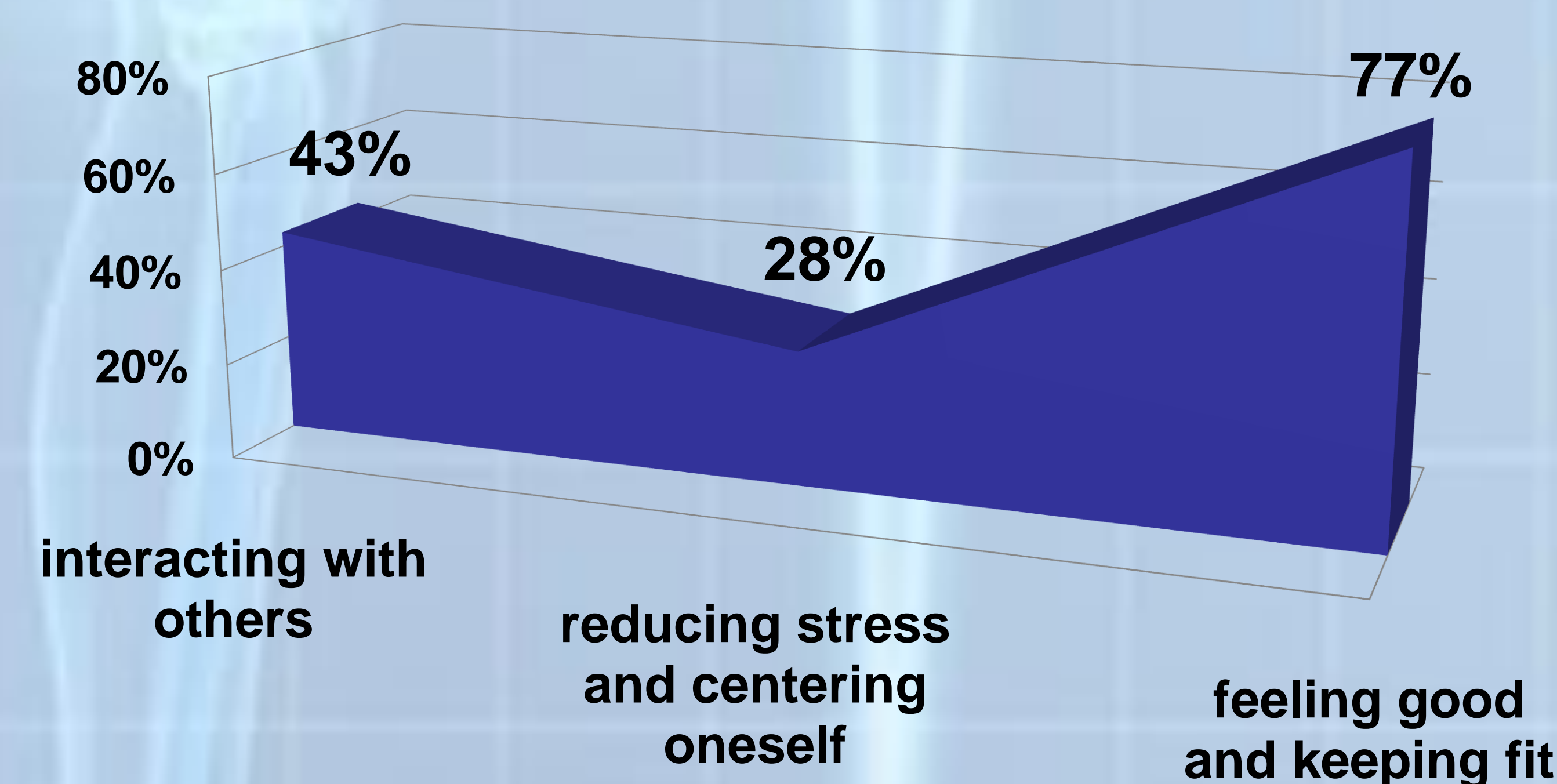
Over the course of a four year period (2008-2011), 175 students have both participated in the exercise session and fully completed the pre- and post-surveys. All of the responding students were undergraduates enrolled in and advanced elective negotiation subject. Sixty one percent of the responding undergraduate students were male (n=107) and 39% were female (n=68). In terms of patterns across the students' pre-exercise session responses to background questions about their typical routines:

- The average number of days that students reported exercising per week was 4 (mean=3.6; s.d.=2.1; min=0; max=7)
- Prior to the session, students ranked exercise as important in the following ways: 66% of the students rated it as highly important (n=115), 22% of students rated it as moderately important (n=38), and 12% of students rated it as not important (n=22)
- 91% (n=159) of the students reported that they had previously considered the link between exercise and their mental states. It is interesting to note that each of these students (the 91% who mentioned that they had thought about the link between exercise and mental state) reported working out at least two times per week (i.e., they weren't the students who reported having no exercise routine).

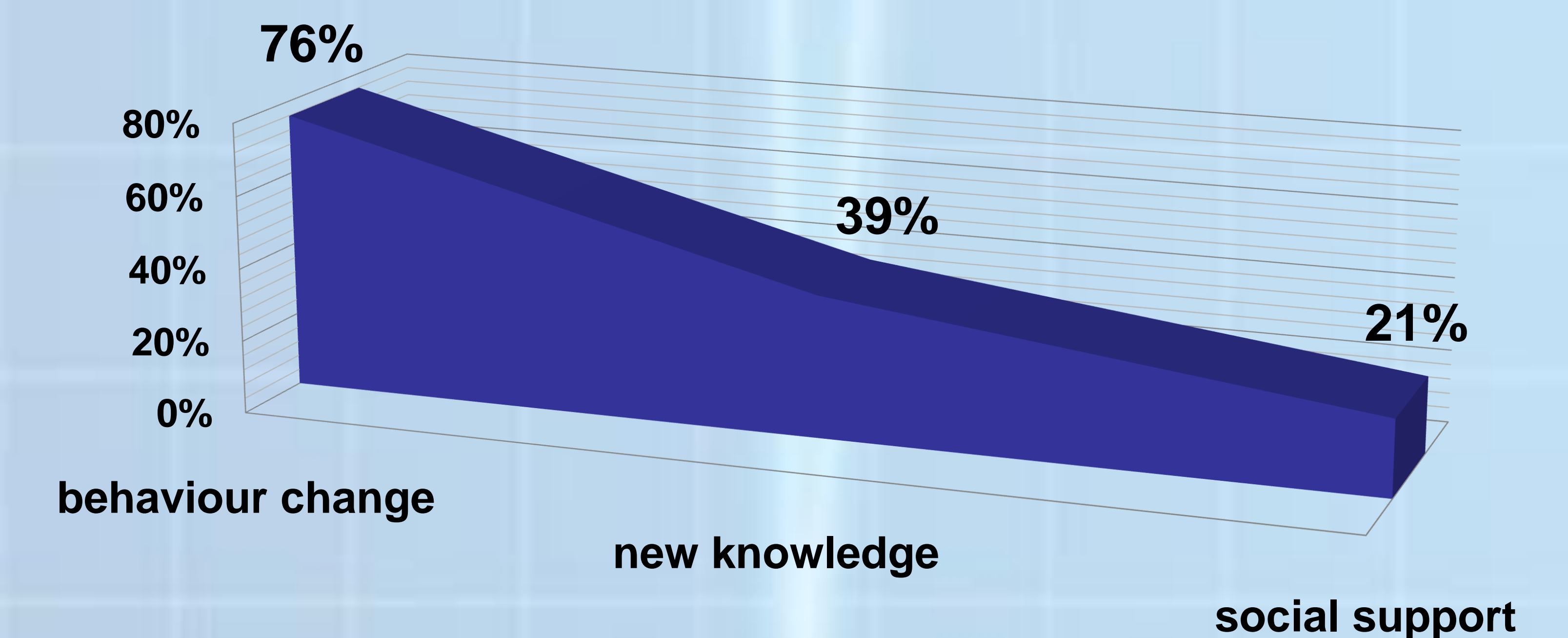
Following the exercise session, ninety nine percent of the students (n=173) reported thinking that exercise would help them as a negotiator) and 100% of the students from cohorts across all four years reported having fun in the session.

## THEMES DERIVED FROM QUALITATIVE RESPONSE DATA

Three themes derived from the question  
"Why do you exercise?"



Three themes derived from the question  
"What did you learn?"



## RESEARCHERS & PUBLICATION



Dr. Amy L. Kenworthy



Dr. George A. Hrivnak

Kenworthy, A. L. & Hrivnak, G. A. (2012). Do sweat it: Using a fitness session as an introduction to research on the relationship between physical and mental states. *Journal of Management Education*, 36(2): 264-289.